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New Jersey Agricultural Statistics Service

FARM FACTS

"FACT FINDERS FOR AGRICULTURE"

New Jersey Agricultural Statistics Service
P.O. Box 330
Trenton, NJ 08625
Phone: 1(800)328-0179
Fax: 1(800)625-7581
www.nass.usda.gov/nj/

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U.S. Agricultural Chemical Usage

2001 Fruit Summary

August 2002

United States Blueberries

Herbicides were applied on 65 percent of the blueberry acres in the four program states. Insecticides and fungicides were used on 89 and 87 percent of the acreage, respectively. The most popular insecticide was phosmet, used on 52 percent of the acreage, followed closely by azinphos-methyl at 47 percent. For herbicides, diuron was the most commonly used, at 30 percent of the acres. Captan (63 percent of acres); benomyl (61 percent of acres); and ziram (45 percent of acres) were the three most commonly used fungicides.

New Jersey Blueberries

Herbicides were applied to 43 percent of the blueberry acres in New Jersey. Insecticides were used on 95 percent of the acreage, and fungicides on 88 percent of bearing acreage. The insecticide used most often was methomyl, applied to 53 percent of the acreage, followed by phosmet at 45 percent. The most commonly used herbicide was norflurazon, applied to 35 percent. The three fungicides used most often were ziram (69 percent of acres); captan (66 percent of acres); and benomyl (64 percent of acres).

Blueberries: Agricultural Chemical Applications, Program States, 2001 1/

Agricultural Chemical	Area Applied	Applications	Rate Per Application	Rate Per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1000 lbs
Herbicides					
Diuron	30	1.1	0.87	1.03	9.9
Glyphosate	27	1.4	0.57	0.81	7.1
Hexazinone	3	1.0	0.44	0.44	0.5
Napropamide	*	1.0	1.44	1.44	0.3
Norflurazon	14	1.1	1.97	2.31	10.3
Oryzalin	6	1.2	1.54	1.95	3.6
Paraquat	10	1.3	0.28	0.37	1.2
Sethoxydim	2	1.2	0.14	0.18	0.1
Simazine	24	1.1	1.19	1.40	10.6
Terbacil	21	1.1	0.48	0.55	3.7
Insecticides					
Azinphos-methyl	47	1.9	0.52	1.03	15.6
Bt (Bacillus thur.)2/	8	1.4			
Carbaryl	25	1.8	1.60	2.88	23.4
Diazinon	13	1.4	0.70	1.03	4.4
Esfenvalerate	9	1.3	0.04	0.06	0.2
Imidacloprid	10	1.3	0.05	0.07	0.2
Malathion	36	2.2	1.56	3.43	40.1
Methomyl	33	1.8	0.72	1.31	14.1
Petroleum distillate	2	1.1	16.04	18.01	9.8
Phosmet	52	2.1	0.82	1.73	29.1
Spinosad	*	1.1	0.06	0.07	3/
Tebufenozide	4	1.0	0.21	0.22	0.3
Fungicides					
Benomyl	61	1.8	0.47	0.85	16.9
Calcium polysulfide	3	1.7	19.51	33.82	30.5
Captan	63	2.9	1.99	5.84	118.4
Chlorothalonil	15	1.2	2.65	3.32	15.7
Copper hydroxide	4	1.5	2.13	3.37	3.8
Copper sulfate	1	1.7	1.82	3.23	1.3
Fenbuconazole	32	1.6	0.09	0.14	1.4
Fosetyl-al	5	1.9	3.36	6.63	10.1
Iprodione	4	1.5	0.65	1.01	1.3
Mefenoxam	*	1.0	0.53	0.56	0.1
Triforine	7	1.1	0.25	0.29	0.6
Ziram	45	2.1	2.41	5.14	75.3
Other Chemicals					
Gibberellic acid	8	2.3	0.04	0.10	0.3

* Area applied is less than one percent.
1/ Bearing acres in 2001 for the 4 program states were 32,200 acres. States included are GA, MI, NJ and OR.
2/ Rates and total applied are not available because amounts of active ingredient are not comparable between products.
3/ Total applied is less than 50 lbs.

Blueberries: Pesticide, Bearing Acreage,
Percent of Area Receiving Applications and Total Applied, Program States and Total, 2001

State	Bearing Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide		Other Chemicals	
	Acres	Pct	1000 lbs	Pct	1000 lbs	Pct	1000 lbs	Pct	1000 lbs
GA	4,600	79	10.0	65	6.9	83	22.0	56	0.9
MI 2/	17,400	71	18.3	98	95.2	90	155.7		
NJ 2/	**7,400**	**43**	**12.4**	**95**	**24.5**	**88**	**55.5**		
OR 2/	2,800	65	7.4	58	13.5	74	44.4		
Total	32,200	65	48.1	89	140.2	87	277.5	10	1.0

1/ Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Insufficient reports to publish data for one or more pesticide classes.

Blueberries: Agricultural Chemical Applications, New Jersey, 2001 1/

Agricultural Chemical	Area Applied	Applications	Rate Per Application	Rate Per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1000 lbs
Herbicides					
Diuron	31	1.1	1.08	1.29	2.9
Glyphosate	4	1.6	1.04	1.69	0.4
Norflurazon	35	1.1	2.16	2.52	6.6
Terbacil	28	1.2	0.51	0.62	1.3
Insecticides					
Carbaryl	23	1.2	2.03	2.53	4.2
Imidacloprid	34	1.4	0.05	0.07	0.2
Malathion	25	1.8	1.38	2.59	4.7
Methomyl	53	2.3	0.68	1.63	6.4
Phosmet	45	1.5	0.79	1.20	4.0
Fungicides					
Benomyl	64	1.2	0.36	0.46	2.2
Captan	66	3.4	1.79	6.12	30.0
Fenbuconazole	14	1.4	0.09	0.13	0.1
Ziram	69	1.8	2.16	4.06	20.7

1/ Bearing acres in 2001 for New Jersey were 7,400 acres.

United States Peaches

Fungicide use was reported on 92 percent of the peach acreage in the five program states. Michigan reported fungicide use on all of their peach crop. All other program states ranged from 88 to 99 percent of the acres. Insecticides were applied to 91 percent of the acreage, with Georgia treating their entire crop. Herbicide use was reported on 59 percent of the peach acreage. **New Jersey had the lowest percent treated, reporting use on only 45 percent of the crop.**

New Jersey Peaches

New Jersey's herbicide usage, at 45 percent of bearing acreage, was the lowest of the four program states. The herbicide used most often was diuron, at 34 percent, with norflurazon not far behind, at 26 percent. Azinphos-methyl, at 88 percent, was the most popular insecticide. Sulfur, at 93 percent, was the fungicide of greatest choice for growers, followed by copper resinate, at 85 percent, and propiconazole, at 82 percent.

Peaches: Pesticide, Bearing Acreage,
Percent of Area Receiving Applications and Total Applied, Program States and Total, 2001

State	Bearing Acreage	Area Receiving and Total Applied							
		Herbicide		Insecticide 1/		Fungicide		Other Chemicals	
	Acres	Pct	1000 lbs	Pct	1000 lbs	Pct	1000 lbs	Pct	1000 lbs
CA 2/	76,000	51	94.9	88	1,751.4	88	1,353.6	18	13.0
GA 3/	15,000	95	25.2	100	136.7	99	608.5		
MI 3/	4,500	59	3.1	99	19.8	100	118.3		
NJ 3/	**8,000**	**45**	**17.0**	**98**	**64.9**	**98**	**369.8**		
SC 3/	16,000	69	87.7	95	132.5	97	997.4		
Total	119,500	59	227.9	91	2,105.6	92	3,447.8	12	13.4

1/ Total Applied excludes Bt's (Bacillus thuringiensis) and other biologicals. Quantities are not available because amounts of active ingredient are not comparable between products.
2/ Acreage in California includes nonbearing acres. Total applied may include applications of some active ingredients made only to nonbearing acres.
3/ Insufficient reports to publish data for one or more pesticide classes.

Peaches: Agricultural Chemical Applications, Program States, 2001 1/

Agricultural Chemical	Area Applied	Applications	Rate Per Application	Rate Per Crop Year	Total Applied
	Percent	Number	Pounds per Acre		1000 lbs
Herbicides					
2,4-D	9	1.1	0.85	0.93	9.7
2,4-D, Dimeth. salt	*	1.6	0.76	1.28	1.2
Diuron	9	1.0	1.02	1.08	11.8
Glyphosate	41	1.9	0.71	1.38	68.0
Napropamide	*	1.1	2.22	2.61	2.5
Norflurazon	5	1.1	1.39	1.56	9.1
Oryzalin	1	1.1	1.15	1.27	1.7
Oxyfluorfen	13	1.3	0.49	0.64	10.1
Paraquat	28	1.9	0.53	1.04	35.3
Pendimethalin	3	1.0	1.85	1.95	7.4
Simazine	29	1.1	1.24	1.46	50.5
Terbacil	2	1.0	0.42	0.46	1.2
Insecticides					
Azinphos-methyl	18	4.4	0.62	2.74	57.4
Bt (Bacillus thur.)2/	12	1.5			
Carbaryl	12	1.7	2.11	3.68	53.9
Chlorpyrifos	20	1.2	1.20	1.51	35.3
Clofentezine	8	1.1	0.12	0.14	1.3
Diazinon	11	1.4	1.65	2.43	32.0
Dicofol	5	1.3	1.12	1.52	9.0
Endosulfan	3	2.1	0.78	1.64	6.2
Esfenvalerate	35	1.9	0.04	0.07	3.1
Fenamiphos	*	1.0	2.61	2.64	0.9
Fenbutatin-oxide	13	1.3	0.69	0.91	14.0
Formetanate hydro.	*	1.2	0.56	0.69	0.2
Hexythiazox	3	1.0	0.11	0.12	0.4
Imidacloprid	*	2.1	0.06	0.13	0.1
Malathion	*	3.9	2.12	8.33	0.3
Methidathion	2	1.3	1.40	1.82	5.2
Methomyl	3	3.2	0.59	1.93	7.4
Methoxychlor	*	3.8	2.64	10.22	0.3
Permethrin	23	2.5	0.22	0.57	15.6
Petroleum distillate	33	1.4	28.58	41.30	1,605.6
Phosmet	45	3.7	1.23	4.62	249.5
Propargite	*	1.2	1.54	1.99	1.1
Pyridaben	2	1.2	0.29	0.36	1.0
Spinosad	5	1.2	0.09	0.12	0.7
Fungicides					
Azoxystrobin	3	1.3	0.16	0.20	0.8
Basic copper sulfate	6	1.2	8.94	11.04	76.6
Benomyl	9	1.4	0.38	0.53	5.6
Calcium polysulfide	*	2.3	0.98	2.28	2.6
Captan	24	3.4	1.52	5.21	149.6
Chlorothalonil	13	1.2	1.78	2.20	35.5
Copper hydroxide	22	1.4	3.13	4.58	119.0
Copper oxide	5	1.4	4.89	6.98	41.8
Copper oxychlo. sul.	3	2.3	1.52	3.57	11.8
Copper oxychloride	*	1.0	2.04	2.04	0.8
Copper resinate	6	11.1	0.02	0.23	1.5
Copper sulfate	1	1.0	1.25	1.29	2.3
Cyprodinil	13	1.4	0.22	0.32	5.1
Dodine	1	4.1	0.32	1.33	2.1
Fenbuconazole	21	1.7	0.09	0.17	4.2
Ferbam	*	1.1	2.04	2.42	1.7
Iprodione	19	1.4	0.62	0.86	19.5
Myclobutanil	8	2.8	0.07	0.21	2.1
Oxytetracycline	4	4.7	0.10	0.46	2.4
Propiconazole	34	1.8	0.10	0.19	7.7
Sulfur	62	4.9	7.66	37.65	2,802.9
Tebuconazole	12	1.5	0.14	0.21	2.9
Thiophanate-methyl	*	2.0	0.74	1.52	1.7
Ziram	19	1.5	4.31	6.46	145.1
Other Chemicals					
E-8-Dodecenyl acetate	11	1.6	0.002	0.003	3/
Octadecadien (E,Z) 4/	*	1.1			3/
Octadecadien (Z,Z)	*	1.1	0.006	0.006	3/
Strychnine	*	1.2	0.005	0.006	3/
Z-8-Dodecanol 4/	11	1.6			3/
Z-8-Dodecen acetate	11	1.6	0.03	0.05	0.6

* Area applied is less than one percent.
1/ Bearing acres in 2001 for the 5 program states were 119,500 acres. States included are CA, GA, MI, NJ and SC.
2/ Rates and total applied are not available because amounts of active ingredient are not comparable between products.
3/ Total applied is less than 50 lbs.
4/ Rates and total applied are not available because amounts of active ingredient are too small.

Peaches: Agricultural Chemical Applications, New Jersey, 2001 1/

Agricultural Chemical	Area Applied	Applications	Rate Per Application	Rate Per Crop Year	Total Applied
	Percent	*Number*	*Pounds per Acre*		*1000 lbs*
Herbicides					
Diuron	34	1.0	1.09	1.16	3.1
Glyphosate	17	1.0	1.02	1.07	1.5
Norflurazon	26	1.0	2.29	2.29	4.8
Paraquat	19	1.1	0.64	0.75	1.1
Simazine	13	1.0	1.25	1.25	1.3
Terbacil	22	1.1	0.47	0.53	0.9
Insecticides					
Azinphos-methyl	88	8.1	0.44	3.61	25.5
Carbaryl	9	1.9	1.00	1.96	1.3
Chlorpyrifos	15	1.1	0.83	0.92	1.1
Endosulfan	4	2.4	1.38	3.40	1.0
Esfenvalerate	26	5.1	0.02	0.08	0.2
Methomyl	27	4.6	0.59	2.76	5.9
Petroleum distillate	9	1.6	14.90	24.17	16.7
Phosmet	59	2.8	0.84	2.41	11.4
Fungicides					
Benomyl	6	3.1	0.34	1.06	0.5
Captan	76	6.0	1.39	8.43	51.4
Chlorothalonil	49	1.6	1.34	2.21	8.7
Copper resinate	85	11.1	0.02	0.23	1.5
Fenbuconazole	13	2.7	0.07	0.20	0.2
Myclobutanil	52	4.7	0.06	0.27	1.1
Propiconazole	82	3.2	0.08	0.26	1.7
Sulfur	93	8.6	4.46	38.76	289.1
Ziram	45	1.0	2.85	2.89	10.4

1/ Bearing acres in 2001 for New Jersey were 8,000 acres.

NEW JERSEY
AGRICULTURAL STATISTICS SERVICE
Rm 205 Health and Agriculture Bldg,
P. O. Box 330
Trenton, NJ 08625